Albert Ariel Widiaatmaja

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Education

National University of Singapore Aug 2021 – Present

B. Comp in Computer Science and Mathematics Double Majors

- GPA: 5.0 (out of 5.0)
- Recipient of NUS Undergraduate Merit Scholarship (ASEAN)

Work Experience

ConcreteAI *Software Engineering Intern* May 2022 – Aug 2022

- Performed low-level development on RAK3172 in C++ to add Bluetooth Low Energy (BLE) functionality for transmission of concrete temperature development data
- Developed an android application to connect and receive data from BLE devices with Kotlin (Android Studio)
- Employed PyTorch MLP machine learning model to classify concrete types based on temperature development data

National University of Singapore *Teaching Assistant* Aug 2022 – Present

- Taught CS1010E Introduction to Programming in Python to a class of 20 freshmen
- Conducted tutorial and consultation sessions to help students understand programming concepts

Projects

FoodSense *Full-Stack Software Engineer* May 2022 – Aug 2022

- Worked in a team of two to create restaurant sentiment analysis website as software engineer
- Built the database system using Firebase, backend API using NodeJS and ExpressJS, and frontend using React and MUI3
- Check out the live website at https://foodsense2022.github.io/

Skills

- Programming: C++, Java, JavaScript, Python, C, HTML, CSS, Kotlin
- Frameworks: React, Kotlin (Android Studio), NodeJS, ExpressJS, Firebase, MongoDB, Git

Activities

NUS Indonesian Association *Co-Director of Tech. Division* May 2022 – Present

- Lead 8 programmers to update https://pinusonline.org/ and work on upcoming projects
- Organized NUS Indonesian Association Orientation 2022 for 100+ Indonesian freshmen

Young Physicists' Tournament Sep 2019 – Mar 2020

- Built experimental set-up and analyzed data on "Speckle Drift" phenomenon using OpenCV
- Created an optics simulation with C++ and Mathematica to produce theoretical predictions
- Achieved Silver Medal in Singapore Young Physicists' Tournament Category A 2020

Robotics Competitions Jan 2019 – July 2020

- Built robots with Lego and Arduino and programmed using EV3Dev Python and Arduino C
- Received 3rd Place Award in RoboCup Singapore 2019 Rescue Category

Physics Olympiad Jan 2017 – Dec 2020

- Won Silver Medal Singapore Physics Olympiad 2019, Bronze and Silver Medals in Singapore Junior Physics Olympiad 2017 and 2018